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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,040	03/15/2001	Atsushi Kota	Q63295	3211

7590

04/24/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
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EXAMINER

ZAMANI, ALI A

ART UNIT

PAPER NUMBER

2674

10

DATE MAILED: 04/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/808,040

Applicant(s)

KOTA ET AL.

Examiner

Ali A. Zamani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito et al. (US Pat. No. 6,356,251 B1) in view of Shen et al. (US Pat. No. 6,414,661 B1).

In regard to claims 1, 3-5, Naito et al. teach an image display device which comprises a plurality of strip-like data electrodes, a light emitting layer, and a plurality of strip-like scanning electrodes formed on a substrate (10a) in sequence (see Figs 1-4, col. 3, lines 21-40), and further comprises an image display portion formed by a plurality of light emitting elements in matrix form at crossing points between data electrodes and scanning electrodes (see Fig. 12), and a column driving circuit (50) and a row driving circuit (40) for driving image display portion by selecting and lighting light emitting element (42, 44 and 52, 54): wherein row driving circuit has a function to simultaneously drive more than two of scanning electrodes and successively lighting the horizontal regions in sequence corresponding to the number of scanning to the number of scanning electrodes for simultaneously driving light emitting elements (see Figs 24, 25 and 27). Naito et al. substantially teach the above claimed limitations except for a "column driving circuit has a function to control a current flowing in data electrodes such that a current of light emitting element is maintained without changing". However, Shen et al. teach a method and apparatus for calibrating display (OLED), calculates and predicts the decay in light output

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efficiency of each pixel based on the accumulated drive current applied to the pixel and drives a correction coefficient that is applied to the next driver current for each pixel (see the abstract). Shen et al. teach that electroluminescent display are particularly vulnerable to developing time dependent uniformity changes at a constant current density because the luminous efficiency of a pixel varies with the total amount of light it produces, adjacent pixels in a display may develop non-uniformities over time, which depend on the driving history of each pixel and these non-uniformities may require periodic optical calibration to maintain a uniform display (see col. 5, lines 28-38). Thus, it would have been obvious to one of ordinary skill in the art to utilize the method of Shen et al. in the display device of Naito et al. in order to provide an image display device and a driving method includes a sensing circuit for controlling the brightness by use of a simple operation method.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naito –Shen et al. of Shimizu (US Pat. No. 5,754,160).

In regard to claim 2, Naito-Knapp is discussed above. Naito-Shen-et al. substantially teach the above claimed limitations except for teaching an “image display portion is divided into a plurality of image display portions for displaying images by at least two image display regions by plurality of scanning electrodes into at least two regions”. Shimizu et al. disclose a LCD device for displaying an image of one frame formed of a first field and a second field which comprising a LCD panel including a plurality of scanning lines and a plurality of segment lines formed in matrix and having a first display area and a second display area (see col. 2, lines 3-18). Shimizu et al. substantially teaches the concept of using an image display portion, which is divided into a plurality of image display portion for displaying images, by at least two image

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display regions by dividing plurality of scanning electrodes into at least two regions is old. Thus, it would have been obvious to one of ordinary skill in the art to combine the display device of Naito-Shen et al. with display device of Shimizu et al. to provide a LCD device capable of displaying an image with a quick response and a sharp contrast in a display area.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Zamani whose telephone number is (703) 308-6414. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe, can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ali Zamani

April 18, 2003

A handwritten signature in black ink, appearing to read 'R. Hjerpe', is positioned above the printed name and title.

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600